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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/540,551

10/11/2005

Frank Mattner

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10/30/2008

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EXAMINER

HEARD, THOMAS SWEENEY

ART UNIT

PAPER NUMBER

1654

NOTIFICATION DATE

DELIVERY MODE

10/30/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/540,551	Applicant(s) MATTNER, FRANK	
	Examiner THOMAS S. HEARD	Art Unit 1654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-49 is/are pending in the application.
- 4a) Of the above claim(s) 45-49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/24/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I, Claim 30-44, in the reply filed on 7/30/2008 is acknowledged. The traversal is on the ground(s) that the Office has not shown a burden exists in searching the entire application. This is not found persuasive because burden is not an appropriate argument under PCT Rule 13.1. Proper arguments were to be directed as to the groups of invention were linked so as to form a single inventive concept. Absent these arguments, the restriction is deemed proper and is therefore made FINAL.

Claims 45-49 withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected subject matter, there being no allowable generic or linking claim.

Claim(s) 30-49 are pending. Applicants have cancelled the original claims 1-29, directed to use claims. The newly submitted claims are applicable to the original restriction requirement, only differing in Claim numbering and corrected language to overcome pending rejection over "use" claims. Claims 44-49 are withdrawn. Claims 30-44 are hereby examined on the merits.

The elected species was found in the prior art and the rejection is cited below. In the course of searching other prior art was found that anticipated the generic claim and has been applied below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 30, 34, 36, 38, 39, 42-44 are rejected under 35 U.S.C. 102(b) as being anticipated by Eichler J et al, "Identification of Substrate-Analog Trypsin Inhibitors through the Screening of Synthetic Peptide Combinatorial Libraries, Biochemistry 1993, 32, 11035-11041.

In instant invention is drawn to isolated or purified compound comprising the following amino acid sequence $X_1X_2X_3X_4X_5X_6$.

Table 4 of Eichler J et al discloses 19 dodecapeptides readable upon the genus of $X_1X_2X_3X_4X_5X_6$. The peptides are 10 amino acids long, readable on Claims 34 and 42. Given that peptide of $X_1X_2X_3X_4X_5X_6$ are embedded in the 10-mer peptide, the peptides are covalently coupled to a carrier and the carrier is a peptide, readable on claims 35 and 36. The peptides were incubated in a buffer readable on a pharmaceutically acceptable carrier of Claims 38, and were in the presence of trypsin, readable upon a non-covalently associated peptide linker or protein carrier. Claims 43 and 44 are not given patentable weight as they are merely amounts of the peptide, and the amounts of peptide in mg to ng is still the compound. Applicants have not provided a limiting definition of carrier, and thus what constitutes a protein carrier of claims 36 and 39 is

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any protein or peptide present in with the peptides of Claim 30. Therefore, the invention as claimed is anticipated by the prior art.

Claims 30, 35-40, 43, and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Abadie et al, "Specific and total IgE responses to antigenic stimuli in Brown-Norway, Lewis and Sprague-Dawley rats," Immunology (1980), Vol. 39 561-569.

Abadie et al discloses a composition comprising 10 ug of ovalbumin, readable upon a peptide of sequence $X_1X_2X_3X_4X_5X_6$, and readable upon Claims 30, 43, and 44. Since the embedded sequence of $X_1X_2X_3X_4X_5X_6$ in the ovalbumin is covalently attached to a peptide on either end of the X_1 - X_6 sequence, is it readable upon Claims 35 and 36. The ovalbumin was added to KLH, bovine serum albumin, and aluminum hydroxide, readable upon claim 37-40. Therefore, the invention as claimed is anticipated by the prior art.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

For the purpose of this invention, the level of ordinary skill in the art is deemed to be at least that level of skill demonstrated by the patents in the relevant art. Joy Technologies Inc. V. Quigg, 14 USPQ2d 1432 (DC DC 1990). One of ordinary skill in the art is held in accountable not only for specific teachings of references, but also for inferences which those skilled in the art may reasonably be expected to draw. In re Hoeschele, 160 USPQ 809, 811 (CCPA 1969). In addition, one of ordinary skill in the art is motivated by economics to depart from the prior art to reduce costs consistent with desired product properties. In re Clinton, 188 USPQ 365, 367 (CCPA 1976); In re Thompson, 192 USPQ 275, 277 (CCPA 1976).

Claims 30, 33, 35, 36, 38, 41, 43, and 44 rejected under 35 U.S.C. 103(a) as being unpatentable over Homburger et al., US 6,703,491 B1.

The instant invention is drawn to Applicant's elected species of SWEFRT (SEQ ID NO:113). Homburger et al teaches the following sequence:

RN 669135-91-5 REGISTRY; CN Protein (Drosophila melanogaster clone US6703491-SEQID-32985 fragment) (9CI) (CA INDEX NAME).

OTHER NAMES: CN 985: PN: US6703491 SEQID: 32985 claimed protein

SEQ 1 PEELYIDQSS QQSDRDFVEA QVPGDKLKL HFKVNVVEEQKIL**SWEFRT**FD
51 YDIKFGIYSV DDKTGEKRSE VPLGTVYSNE MDEIGYISTR PNTTYTVVFD
101 NSASYLRSKK LRYWVDLISE EEGISELTT QMDNTQ.

The sequence in bold and underlined is the hexamer sequence of SEQ ID NO:113, instantly claimed. It is covalently attached to peptide on either side of the peptide, readable upon Claim 35, 36, and 41, and stored and isolated in pharmaceutically acceptable buffers and salts, as taught by Homberger et al below, readable upon Claim 38. Because the purification protocols result in optimal

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concentrations or desired concentrations. the concentrations of Claims 43 and 44 are art recognized results effective variables. Homburger et al further teaches vectors and host cells comprising such nucleic acid SEQ ID NOs, as well as methods for the production of a Drosophila proteins (e.g., by recombinant means), and derivatives and analogs thereof. Chimeric polypeptide molecules comprising polypeptides of the invention fused to heterologous polypeptide sequences are provided. Methods to identify the biological function of a Drosophila gene are provided, including various methods for the functional modification (e.g., overexpression, underexpression, mutation, knock-out) of one gene, or of two or more genes simultaneously. Methods to identify a Drosophila gene which modifies the function of, and/or functions in a downstream pathway from, another gene are provided. The invention further provides for use of Drosophila proteins as media additives or pesticides.

It would have been obvious to one of ordinary skill in the art to clone SEQ ID NO 113 as taught by Homburger et al. One would have been motivated to do so given the expressed teaching of Homburger et al supra, where the methods are provided to make and use SEQ ID NO 113. One would have had a reasonable expectation of success in cloning and producing SEQ ID NO 113, given Homburger's teaching of practical and known methods in the art to express and analyze the proteins from Drosophila proteins. From the teachings of the references supra, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of

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ordinary skill in the art at the time the invention was made, as evidenced by the references, and the invention as claimed, is rejected under 35 U.S.C. 103(a).

Conclusion

No claims are allowed.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Prior art contained in the reference of record can be applied in the next office action.

Applicant should specifically point out the support for any amendments made to the disclosure, including the claims (MPEP 714.02 and 2163.06). Due to the procedure outlined in MPEP § 2163.06 for interpreting claims, it is noted that other art may be applicable under 35 U.S.C. § 102 or 35 U.S.C. § 103(a) once the aforementioned issue(s) is/are addressed.

Applicant is requested to provide a list of all copending applications that set forth similar subject matter to the present claims. A copy of such copending claims is requested in response to this Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas S. Heard whose telephone number is (571) 272-2064. The examiner can normally be reached on 9:00 a.m. to 6:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cecilia Tsang can be reached on (571) 272-0562. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anish Gupta/
Primary Examiner, Art Unit 1654

/Thomas S Heard/
Examiner, Art Unit 1654

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